



Nov 75

HEARD ANY GREAT STORIES LATELY?

Here are two that make for more than just good reading.

One is about the Program Debug Console for PDP-11 users, and in less than a year since we first introduced this innovative mini peripheral, it's become a best seller.* And for a good reason.

It enables PDP-11 users to perform a range of program debugging and system maintenance functions not possible with their current software. Providing significant savings for their data processing budgets.

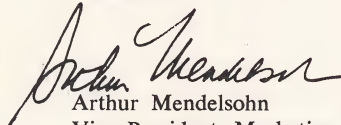
The PDP Program Debug Console for PDP-11 Users. Available now, and for only \$1,200. From Formation.

Our other story is about a DEC Printer, with a plot(ter) you'll tell your friends about. It's quiet, reliable, hardworking, capable and, best of all, economical. No, it's actually downright cheap!

Formation has a DEC LV11 Electrostatic printer-plotter that offers 500-lpm, 132-column, 96-character capabilities, with 10-bit resolution plotting. It's new, unused, and \$3,400 below than the standard DEC \$12,400 purchase price.

Information on these two great stories is attached. Along with a business reply card that enables you to quickly and easily order this equipment. Or, if you wish, you can place the order by phone, by calling me at 609-234-5020.

Sincerely,



Arthur Mendelsohn
Vice President, Marketing

P.S. Formation also offers two other subsystems for PDP-11 users—a high-performance, automatic loading, fourth generation tape subsystem that controls up to 16 6420 tape drives in single- or dual-channel configurations, and a high-performance, fourth-generation disc subsystem with up to 16 100-million-byte-capacity discs.

* Users' names available on request.

DEC has an e'static??



Nov 75

From Formation ...

A DEC Printer Story with a great plot... and the price to match

If you've been thinking about a DEC Printer-Plotter, but its price keeps changing your mind, Formation has an exciting story for you. It's one of those "we-can-only-tell-it-once" stories, for we have only one to tell, er, sell.

OK well. This one is the DEC LV11 high-speed Electrostatic Printer-Plotter that provides quieter and more reliable operation than conventional impact printers and pen plotters, especially under heavy, continuous use. We acquired it as part of a new DEC system, but really have no need for it. It's new ... it's unused ... and it's waiting to be sold ... for \$9,000, well below its \$12,400 list price. DEC maintenance is available.

The DEC Printer-Plotter prints the entire 96-character ASCII character set (including upper- and lower-case alphabet) in 132 columns per line at 500 lines per minute. The included control unit allows both printing and plotting, and accommodates most DEC line printer software.

In the plotting mode, the LV11 prints 122,880 dots per second (independent of picture complexity) with a resolution of 10 bits (1024 dots per line). The Printer-Plotter uses roll paper for continuous plots and printouts (up to 500 feet), or fanfold paper for easier handling.

The only moving parts in the LV11 are the paper-moving motor and a small toner pump—simplicity of design that guarantees long, trouble-free operation.

If you've been quietly plotting to acquire a superior printer-plotter, without wanting to take a big chunk out of your budget, here's the answer. But it's a one-of-a-kind answer solution, and it's the kind that won't happen again.

Here are some more details:

SPECIFICATIONS

Printing Specifications

Number of columns: 132
Number of characters: 96
Printing speed: 500 line/min
Type of printing: electrostatic, 7 x 9 dot matrix
Vertical spacing: 8 lines/inch
Horizontal spacing: 12.5 char/inch
Memory: one-line buffer (132 char)

Paper

Type: roll, 11" wide x 500 ft long; fanfold, 11" wide x 1000 sheets
Slew speed: 1.2 inches/sec

Plotting Specifications

Plotting area: 10.24 sq. inches
Total writing points: 1024
Vertical spacing: 100 lines/inch
Horizontal spacing: 100 points/inch
Input: 8-bit parallel bytes
Data transfer rate: 500,000 bytes/sec
Plotting speed: 122,880 dots/second
Memory: one-line buffer (1024 bits)

The rest is up to you.

formation

823 East Gate Drive
Mt. Laurel, NJ 08057
609-234-5020

What unit is this?

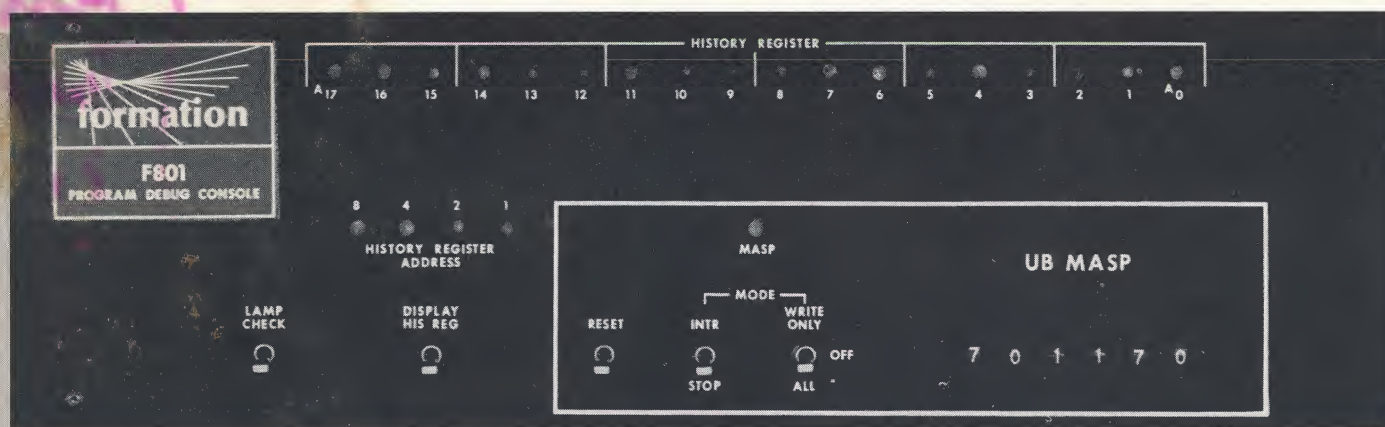
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F801 Program Debug Console For PDP 11[®] Users

Speeds and simplifies
program debugging

Valuable system
maintenance tool



BENEFITS

The F 801 PROGRAM DEBUG CONSOLE provides the user of any PDP 11® series processor a powerful program debugging tool and an effective systems maintenance aid. With the F 801, the user can readily set up a stop or interrupt on a predetermined memory or interrupt location and then examine various elements of the system, including the last 16 addresses that appeared on the UNIBUS®.

USER OPTIONS

- Stop Processor on specified address when a write is attempted
- Stop Processor on specified address when a read or write is attempted
- Generate an interrupt when the processor accesses a specified address in a write mode
- Generate an interrupt when the processor accesses a specified address in a read or write mode
- Stop the processor when any interrupt occurs
- When a specified condition is met, display the last 16 addresses that appeared on the UNIBUS®. This provides a trace of the processor and I/O UNIBUS® activity.

SYSTEM MEMORY ADDRESS STOP

The UNIBUS® Address Recognition and Control logic continuously compares UNIBUS® address sequencing with the operator selectable Memory Address Stop (MASP) switches. Whenever the system UNIBUS® address compares with the MASP setting, an Address Equality signal is generated. Write, or Read/Write cycle switches further delimit generation of the Address Equality signal for either a Write, or a Read or Write (any) UNIBUS® operation. Whenever this Address Equality condition exists in an appropriate Write or Read/Write cycle, the logic will generate a Stop or Interrupt state depending on another operator determined switch. The Stop state causes immediate cessation of UNIBUS® activity, i.e., the system is frozen in that cycle. The Interrupt state generates a UNIBUS® Interrupt to the processor for handling by software. The specific interrupt vector address and bus request level are user determined via jumpers located on the control electronics plug-in. An additional option is provided by setting of the MASP switches to 000000₈, which will cause the Stop or Interrupt states for any peripheral interrupt cycle as well as execution of a UNIBUS® address of 000000₈. This is a result of peripheral interrupts leaving the address lines in a null state, i.e., 000000₈. MASP addresses can designate the address of an instruction, of a Processor or Input/Output operand, or any interrupt vector.

HISTORY ADDRESS REGISTER

The History Address Register continuously saves the 16 most recently executed UNIBUS® addresses. These addresses are stored in a push down stack. Whenever system activity is stopped either as a result of halting processor and peripheral devices or as a system freeze via the System Address Stop, the last 16 UNIBUS® addresses may be manually displayed. Address storing in the History Address Register is also stopped when in the interrupt state of the System Address Stop logic.

Addresses are displayed in the reverse order of execution by depressing the Display History Register switch. Eighteen bits of address are available in the display. Use of the History Address Register thus provides a convenient trace facility of Processor and Input/Output UNIBUS® activity.

CABLE LENGTH OPTIONS

(Between Controller Electronics and Control Panel)		
Length	Model Number	
5 ft.	F801-1	
10 ft.	F801-2	
15 ft.	F801-3	

PHYSICAL CHARACTERISTICS

- Mounts in Standard DEC® cabinet or 19 inch rack.
 - Program Debug Console occupies 5¼ inches of panel space.
 - Electronics require one SPC slot, 1.5 amps at +5 volts.
 - Console can be mounted behind a DEC H-950-PA 5¼ inch Bezel if desired.
 - Electronics use one standard UNIBUS® load.
- ® Registered Trade Marks Digital Equipment Corporation



TOTAL SYSTEM INTEGRATION • CUSTOM DESIGNS
TOTAL SYSTEM MAINTENANCE, INCLUDING PROCESSOR
• Senior engineering support • System trained maintenance personnel